TyrePal
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Tyre Pressure Monitoring System
Hand Held Reader Programmer
TCTH
User manual

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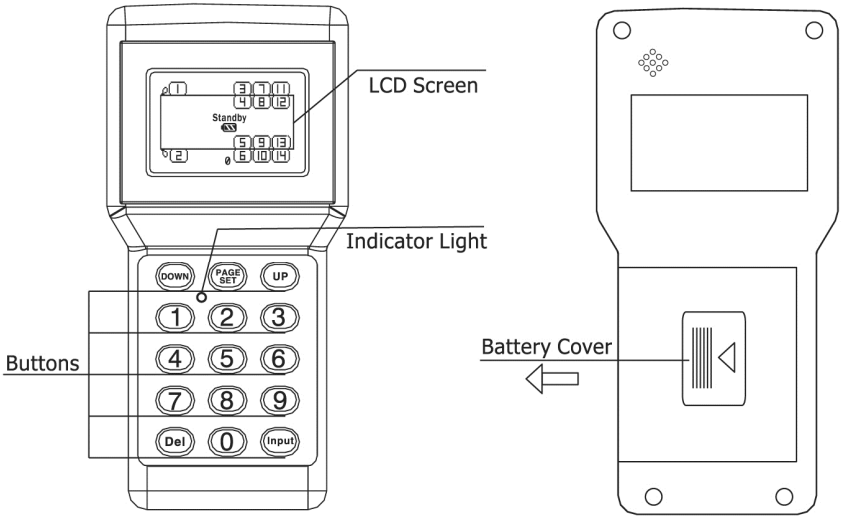
1. INTRODUCTION

The Hand Held Reader Programmer can be used to quickly check all the tyres on a vehicle or trailer. It is also used to set alert levels or to register sensors to each wheel position. It is particularly useful for fleet applications as it is quicker and more convenient than programming through the in-cab monitors.

1.1 Functions

- Read sensor IDs, pressure and temperature
- Store sensor locations and IDs
- Set pressure and temperature units.
- Set pressure and temperature alert levels for tractor and trailers
- Send all data to monitor and repeater at one time
- Can store data for up to 4 trailers
- Can code up to 24 tyres on each trailer.

1.2 Layout and controls



1.3 Power

Insert 4 x AAA batteries. Press any button to turn on the display. In standby mode, the unit turns off automatically after three minutes.

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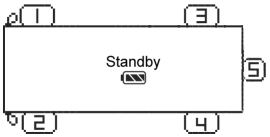
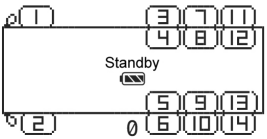
1.4 Screen display

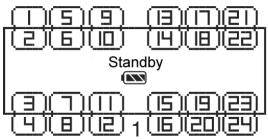
In standby mode, the screen displays an outline of the current vehicle or trailer. The car diagram is only shown if the vehicle type has been set to 'Car'. If Heavy Vehicle has been selected, it will show the tractor, or one of the trailers. Press PAGE/SET to scroll through the tractor and four supported trailers.



Car



Tractor



Trailer 1

2 SET FUNCTION

In standby mode, press and hold the PAGE/SET button until a beep sounds. The screen shows the function setting options, with one function flashing.

Press DOWN, UP or the appropriate number key to highlight the required function and press the INPUT button to select the option that is flashing.

Function Setting:
1: Vehicle Type
2: Sensor Type
3: Parameter Setting

To exit without saving, press the PAGE/SET button or press no buttons for 2 minutes.

To save the function settings, you MUST exit by pressing the PAGE/SET button for three seconds. Unless you exit in this way, the settings will not be saved.

2.1 Select vehicle type

Press DOWN, UP or the appropriate number key to highlight the required function and press the INPUT button to select the option that is flashing.

Sensor Type:
1: 4-Digits ID Sensor
2: 6-Digits ID Sensor
3: Siemens Sensor

2.2 Select sensor type

Press DOWN, UP or the appropriate number key to highlight the required function and press the INPUT button to select the option that is flashing. Choose 6-Digit ID for TyrePal TCE (external) or TCF (external flow-through) sensors.

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2.3 Parameter setting

This mode is used to set the pressure and temperature units, the trailer ID and the pressure and temperature limits for the tyres. If you have selected 'Car' as the vehicle, type, the trailer options are not displayed, and a the high and low alert levels apply to all the wheels rather than being set per axle.

As before, select with the DOWN, UP or number keys and press the INPUT button to select the option that is flashing.

2.3.1 Trailer ID

Press the up or down buttons to select 0: tractor, 1: trailer 1, 2: trailer 2, 3: trailer 3 or 4: trailer 4. Use the number buttons to input a numerical ID code as required.

Press the INPUT button to store the setting and return to the Parameter Settings screen.

Unit Setting:
(1) Pressure unit:
1: PSI 2: Bar
(2) Temperature Unit
1: ℃ 2: ℉

2.3.2 Unit setting

Make the required selection and press INPUT to save.

2.3.3 High and low pressure alert levels

Set the high and low alert levels and press INPUT to save and move on to the next.

Pressure setting 1 is the first axle of the tractor unit
Pressure setting 2 is the second axle of the tractor
Pressure setting 3 is the third axle of the tractor
Pressure setting 4 is the fourth axle of the tractor
Pressure setting T is for all the tyres on the trailer

Note that the in-cab Monitor for TC215 supports only three axles on the monitor. Axle 2 with wheels 3 to 6 is not used.

2.3.4 Alert temperature

Input a temperature with the number buttons. Note that the alert temperature should be above 70°C.

2.3.5 Exit function setting

When all the parameters have been set, press and hold the PAGE/SET button for three seconds to save and exit.

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3 REGISTER SENSORS

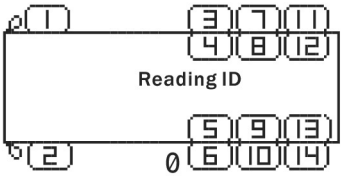
Sensors are interchangeable and can be registered to any of the possible wheel positions.

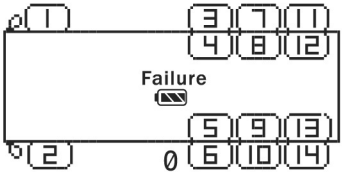
In the Standby mode, use a number button to select the tyre position where a sensor is to be registered. The selected tyre position flashes. Place the reader programmer close to the sensor and press the INPUT button. The display will show 'Reading ID'

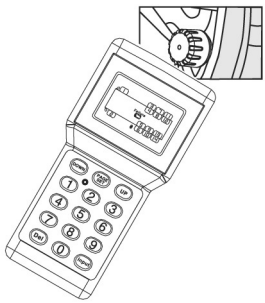
If it is coded successfully, the sounder will beep once and the display will show the sensor ID, together with pressure and temperature data. If it fails to code successfully a double beep will sound and the display will show the word 'Failure' for ten seconds.

If a sensor is coded repeatedly, it will delete the previous record.

4 READ SENSOR DATA



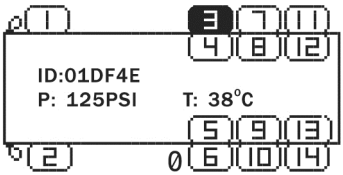




In standby mode, press the UP or DOWN keys repeatedly to cycle through the wheel positions and display the sensor ID together with the current tyre pressure and temperature data.

You can also select a specific wheel position directly with the numerical keys.

Data is displayed for 10 seconds and then the reader reverts to the standby display.



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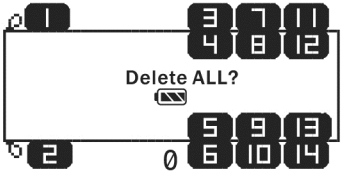
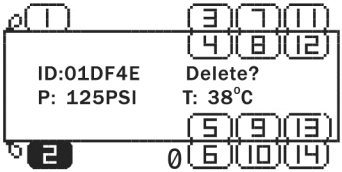
5 DELETE SENSOR DATA



5.1 Delete all sensor data

In standby mode, press the DEL button. All wheels are highlighted. Press INPUT to delete all sensor data.



5.2 Delete individual sensor data

While in reading mode, select the required sensor so the display shows the sensor data. Press the DEL button. Press INPUT to delete data for that sensor only.

6 SEND DATA TO TPMS MONITOR OR TRANSCIEVER

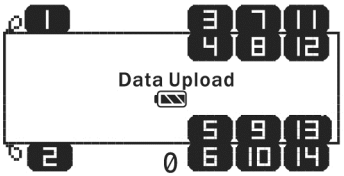
This procedure is used to send the sensor ID, tyre position, pressure and temperature limits from the Hand Held Reader to the Monitor or Smart Trailer Transceiver.

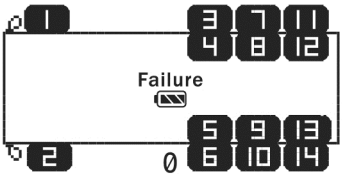
In standby mode, press the PAGE/SET button to select the tractor or trailer required. Press the INPUT button until a beep sound is given and the screen displays 'Data Upload'.

6.1 Send data to TPMS Monitor

Press the MODE button on the TPMS Monitor until it beeps. If the data transfer is successful, the TPMS Monitor displays the tyre icons. If the transfer fails, the Hand Held Reader displays the 'Failure' message.

If the process is not completed within 2 minutes, both the Monitor and the Hand Held Reader return to the standby mode.





6.2 Send data to Smart Trailer Transceiver

Press the button on the Transceiver until it beeps. If the data transfer is successful, the Transceiver gives a single beep and returns to its standby mode. If the transfer fails, the Hand Held Reader displays the 'Failure' message. If the process is not completed within 2 minutes, both the Monitor and the Hand Held Reader return to the standby mode.

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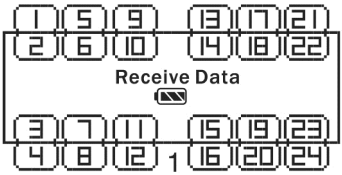
7. RECEIVE DATA FROM SMART TRAILER TRANSCEIVER

In standby mode, press the button on the Transceiver for six seconds and release after the beep sound. Press the UP button on the Hand Held Reader until it gives a beep sound and displays the 'Receive Data' message.

The Hand Held Reader gets the sensor IDs, tyre positions pressure and temperature limits from the Transceiver.



If the data is received successfully, the Hand Held Reader goes back to standby mode and displays the tyre icons. If unsuccessful, it gives a beep...beep sound and exits.

8. SPECIFICATION SUMMARY

Size: 135 x 65 x 29mm	Power <9.5dBm
Weight: 110G	Receiving sensitivity: -108dBm
Power supply: 4 x AAA 1.5V battery	Working temperature: -20°C to 80°C
Frequency: 433.92MHz	Storage temperature: -30°C to 85°C

9. TROUBLESHOOTING AND ADDITIONAL INFORMATION

Additional information about the system, including detailed product specification, troubleshooting and advice on managing tyre pressures is provided on the TyrePal web site, www.tyrepal.co.uk, where it is regularly updated.

10. SERVICE AND WARRANTY

The system is warranted to be free from manufacturing defects and is guaranteed for a period of twelve months from date of purchase. There are no user-serviceable parts inside and if internal parts have been tampered with, the warranty may be void. The warranty does not affect your statutory rights.

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